Saskatchewan
Education

Learning and Leadership

Women's Participation in Education

Discussion Paper

Learning and Leadership: Women's Participation in Education

A Discussion Paper

Prepared by:
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Saskatchewan Institute of Applied Science and Technology

Saskatchewan Regional Colleges

Saskatchewan Human Resources, Labour and Employment

Saskatchewan Human Rights Commission

Executive Summary

Saskatchewan Education is committed to promoting the equitable participation of girls and women within the province's education system. This paper, as one example of that commitment, is intended to provide a common information base for a discussion throughout the education system of the major issues regarding the participation of female students and employees.

An analysis of current female participation within the kindergarten to grade twelve and post-secondary systems in Saskatchewan indicates that, despite increased representation of women in some university programs, females continue to be concentrated in traditional programs and occupations. For example, only 2% of directors of education, 6% of senior university administrators and 12% of managers at the Saskatchewan Institute of Applied Science and Technology are women. Despite similar enrolment and achievement by young men and women in Grade 12 level mathematics and science courses, only 1% of the apprenticeship program enrolment, 7% of engineering students at Saskatchewan's universities and 17% of technology program students at the Saskatchewan Institute of Applied Science and Technology are female. The segregation of employees and students by sex is still evident in Saskatchewan's education system.

These participation patterns are attributed here to personal, situational and institutional barriers for female students and employees that affect their program and occupational choices. However, many and varied strategies for change are available to education institutions and are described in this paper.

Research and experience have shown that crucial elements in achieving change in this area are institutional commitment to equity for female students and employees and the development of comprehensive, interrelated policies and practices that address the complex nature of this issue. The implementation of employment and education equity plans is one approach which meets both those criteria.

Education institutions and Saskatchewan Education have already undertaken many initiatives to promote equity for women. However, continuing and expanded efforts are needed in order to ensure that society in general and the education system in particular benefit fully from the skills and abilities of women.

Introduction

Concerns about the participation of female students and employees in Saskatchewan's education system have been expressed recently in several ways: major conferences such as the National Forum on Post-Secondary Education, Saskatchewan Education's document *Preparing for the Year 2000: Adult Education in Saskatchewan*, the Ministerial consultations held throughout the province in 1987 and presentations by various groups on issues in education. These concerns are based on several philosophical, social and economic factors, including:

- The belief in our society that the education system has a fundamental responsibility to encourage all individuals to reach their full potential.
- The prohibition under both the Canadian Charter of Rights and Freedoms and the Saskatchewan Human Rights Code of discrimination in education and employment on the basis of sex.
- The continuing concentration of women in clerical, sales, service, health and teaching related occupations. Some of these occupations, particularly in the clerical, sales and service related fields, are characterized by low pay, fewer chances of advancement and greater vulnerability to technological change.
- The dramatic increase in the number of women in the labour force and the predicted decrease in the number of young people in the general population which means that provincial and national economic growth will become increasingly dependent on the development and utilization of the knowledge, skills and abilities of women.

This paper will provide a common base for the discussion of these and other topics related to the participation of female students and employees within the province's education system. It will present:

- statistical information on female enrolment and employment patterns within the education system;
- a description of common barriers to women's equal participation and strategies to promote sex equity in education;
- an outline of initiatives already undertaken in Saskatchewan;
- other options for action available to educational institutions and Saskatchewan Education; and
- the major issues arising from an analysis of the current situation in Saskatchewan.

Participation of Female Employees Within Saskatchewan's Education System

Overview

This chapter will profile the participation of female employees in the K-12 and post-secondary systems in Saskatchewan. Some of the major findings of this review are as follows:

Under-representation of Women in Non-Traditional Occupations

Women are under-represented in managerial occupations and in non-traditional teaching positions throughout the system. For example, women are:

- 2% of directors of education within the K-12 system;
- 15% of school principals;
- 25% of classroom teachers at the secondary level;
- 15% of faculty members at Saskatchewan universities;
- 6% of senior administrators at Saskatchewan universities;
- 12% of managers at SIAST and the regional colleges; and
- 10% of industrial or technological division instructors at SIAST.

Over-representation of Women in Traditional Occupations

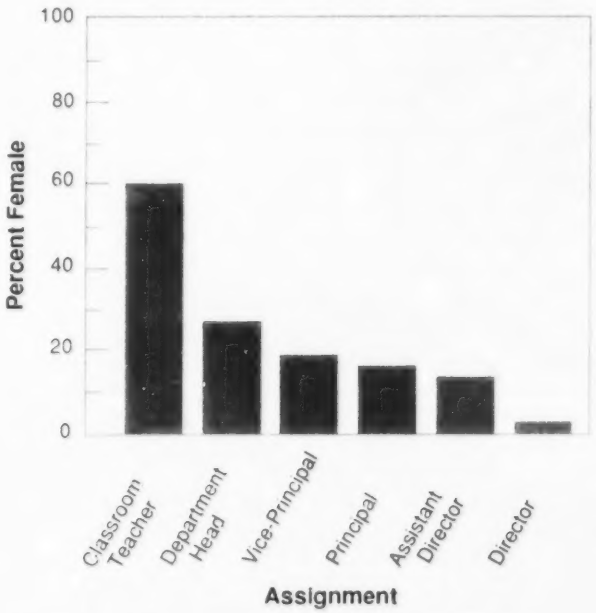
Women are over-represented in traditional occupations for females in the education system. For example, women are:

- 80% of elementary school teachers;
- 90% of health-related instructors at SIAST; and
- more than 90% of all clerical staff at SIAST and the regional colleges.

Female Employees Within the K-12 System

Female Managers Within the K-12 System

Chart 1
Saskatchewan K-12 System:
Percentage of Female Teachers By Assignment
1987-1988



Source: Saskatchewan Education, Teacher's Report on Qualifications, Salary and Experience, 1987-88

More than half (54%) of the full-time teachers in Saskatchewan in 1987-88 were female (see Table 1). Although women were the majority of teachers in the province, few females held administrative positions within the K-12 system. As indicated in both Chart 1 and Table 1, women were:

- 2% of directors of education;
- 13% of assistant directors of education (or equivalent);
- 15% of principals; and
- 18% of vice-principals.

Overall, women held 15% of all management positions in Saskatchewan's K-12 system in 1987-88.

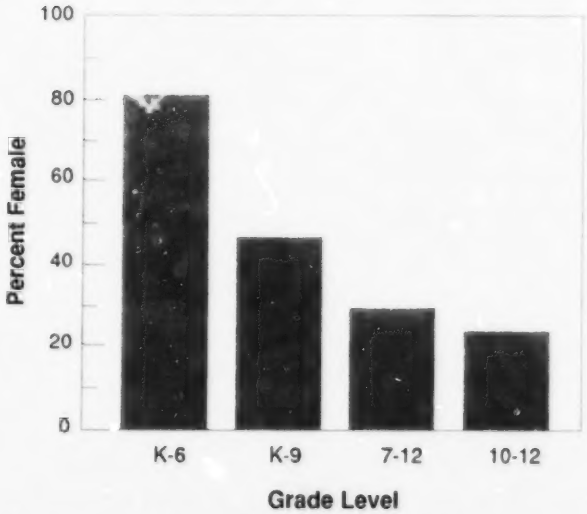
Table 1
Full-Time Teaching Population in Saskatchewan Schools by Assignment and Sex 1987-88

	Sex				
	Male		Female		Total
Assignment	#	%	#	%	#
Director of Education	84	98	2	2	86
Superintendent	36	97	1	3	37
Assistant Director (or equivalent)	34	87	5	13	39
Supervisory Assistant	16	84	3	16	19
Principal	764	85	135	15	899
Vice-Principal	363	82	77	18	440
Designated Dept. Head	152	73	56	27	208
Classroom Teacher	3476	40	5114	60	8590
Other	283	31	635	69	918
Total	**5208**	**46**	**6028**	**54**	**11236**

Source: Saskatchewan Education, Teacher's Report on Qualifications, Salary and Experience, 1987-88.

Female Classroom Teachers Within the K-12 System

Chart 2
Saskatchewan K-12 System: Percentage of Female Teachers By Grade Level 1987-1988



Source: Saskatchewan Education, Teacher's Report on Qualifications, Salary and Experience, 1987-88

Female teachers were also under-represented at higher grade levels (see Chart 2 and Table 2). Women were four times as likely as men to be employed at the K-6 level while at the 10-12 level there were three times as many male as female teachers.

Table 2
Full-Time Teachers by Grade Level and Sex 1987-88

	Sex				
	Male		Female		Total
Grade Level*	#	%	#	%	#
K-6	814	19	3490	81	4304
K-9	557	53	500	47	1057
7-12	2159	71	997	29	3156
10-12	731	75	245	25	976
Other	915	53	804	47	1719
Total	**5176**	**46**	**6036**	**54**	**11212**

*Includes Special Education

Source: Saskatchewan Education, Teacher's Report on Qualifications, Salary and Experience, 1987-88

Profile of Male and Female Teachers

A comparison of the profiles of full-time male and female teachers in Saskatchewan based on 1987-88 data shows that nearly all male teachers had four or more years of post-secondary education and one or more degrees as compared to 82% of women (see Table 3). The average salary for female teachers is $33,356 as compared to an average salary of $37,755 for male teachers. Therefore, on average, female teachers earned 88% of what male teachers earned.

Table 3
Profile of Full-Time Female and Male Teachers in Saskatchewan, 1987-88

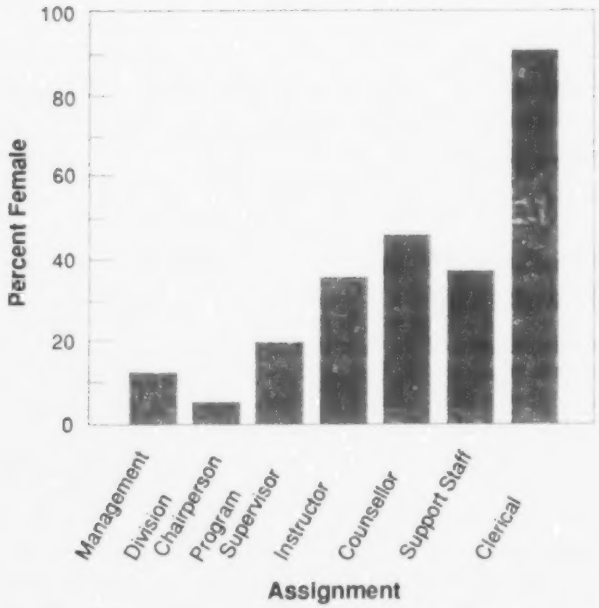
	Female	Male
% of teaching force	54%	46%
% over 40 years of age	40%	50%
Average salary	$33,356	$37,755
% with four or more years of post-secondary education	82%	97%
% with one or more degrees	82%	96%
% with 20 or more years of experience	18%	32%

Source: Saskatchewan Education, Teacher's Report on Qualifications, Salary and Experience, 1987-88.

Female Employees Within the Post-Secondary System

Female Employees Within the Saskatchewan Institute of Applied Science and Technology (SIAST)

Chart 3
Saskatchewan Institute of Applied Science and Technology (SIAST): Percentage of Female Staff By Assignment September 1987



Source: Saskatchewan Education, Human Resources Division

An analysis of broad occupational categories at the four SIAST campuses in September, 1987 indicates that women were seriously under-represented in administrative and over-represented in clerical positions (see Chart 3 and Table 4). Although 43% of all Institute employees were female, women were:

- 12% of all managers;
- 5% of all division chairpeople;
- 19% of program supervisors;
- 92% of clerical staff.

Overall, approximately one-third of the Institute instructors were female. However, analysis of the instructional staff for individual programs indicates that approximately nine out of ten instructors in the industrial and technology divisions were male and nine out of ten instructors in health-related programs were female.

An analysis of the distribution of male and female staff at the four urban community colleges which are now part of SIAST indicates a disproportionate number of males in management positions and females in clerical positions (see Table 5). Approximately four out of five managers were male; nearly all of the clerical staff were female. Women held seven out of ten of the instructor and counsellor positions in the colleges.

Table 4
Saskatchewan Institute of Applied Science and Technology (SIAST): Female Staff by Assignment September, 1987

	Kelsey Campus Female		Palliser Campus Female		Wascana Campus Female		Woodland Campus Female		Total Female	
Assignment	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Management	1	20	1	11	1	8	1	12	4	12
Division Chairperson	0	0	0	0	1	12	0	0	1	5
Program Supervisor	6	15	0	0	7	39	1	8	14	19
Instructor	68	42	13	9	88	52	12	26	181	35
Counsellor	2	66	1	34	2	50	1	25	6	43
Support Staff	5	22	9	30	16	41	14	48	44	36
Clerical	34	97	30	91	59	91	40	89	163	92
Total	**116**	**43**	**54**	**24**	**174**	**55**	**69**	**47**	**413**	**43**

Source: Saskatchewan Education, Human Resources Division.

Table 5
Saskatchewan Urban Community Colleges: Female Staff by Assignment
September, 1987

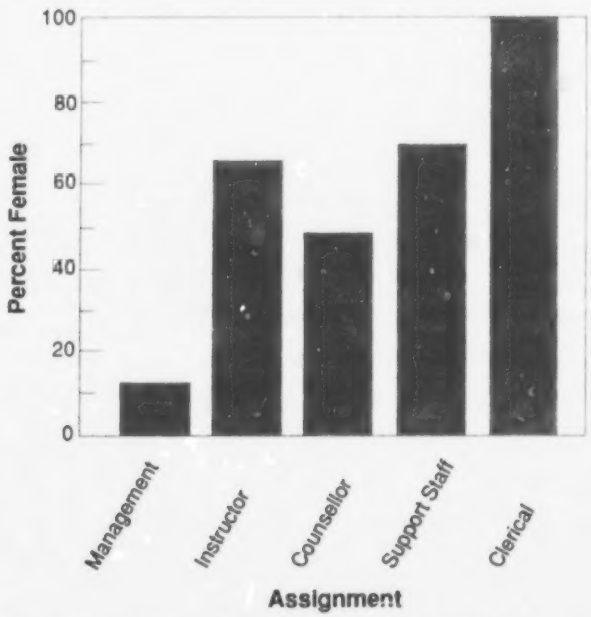
Assignment	Coteau Range[1] Female #	Coteau Range[1] Female %	Prince Albert Region[2] Female #	Prince Albert Region[2] Female %	Regina Plains[3] Female #	Regina Plains[3] Female %	Saskatoon Region[4] Female #	Saskatoon Region[4] Female %	Total Female #	Total Female %
Management	0	0	0	0	0	0	1	50	1	17
Instructor	5	50	31	61	64	75	34	72	134	69
Counsellor	2	66	2	50	3	100	7	78	14	74
Support Staff	1	100	2	29	12	87	14	82	29	74
Clerical	7	100	10	91	27	100	21	100	65	98
Total	**15**	**65**	**45**	**60**	**106**	**84**	**77**	**80**	**243**	**75**

[1] Now part of SIAST, Palliser Campus
[2] Now part of SIAST, Woodland Campus
[3] Now part of SIAST, Wascana Campus
[4] Now part of SIAST, Kelsey Campus

Source: Saskatchewan Education, Human Resources Division.

Female Employees Within Saskatchewan Regional Colleges

Chart 4
Saskatchewan Regional Colleges:
Percentage of Female Staff By Assignment
1985-1986



Source: Community College Annual Reports, 1985-86

As indicated in Chart 4 and Table 6, women within Saskatchewan's regional college system were under-represented in management and over-represented in clerical positions. Women made up nearly three-quarters (72%) of all employees but only 12% of all management positions. All clerical positions were held by women.

Table 6
Saskatchewan Regional Colleges: Staff by Assignment and Sex
1985-86

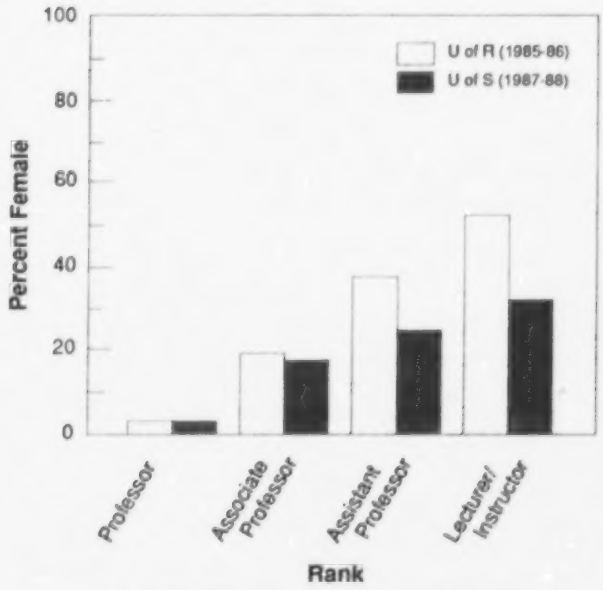
Assignment[1]	Sex Male #	Sex Male %	Female #	Female %	Total #	Total %
Management	14	88	2	12	16	10
Instructor	10	33	20	67	30	19
Counsellor	4	50	4	50	8	5
Support Staff	15	30	35	70	50	33
Clerical	0	0	50	100	50	33
Total	**43**	**28**	**111**	**72**	**154**	**100**

[1] Includes staff from Carlton Trail, Cumberland, Cypress Hills, North West (formerly Mistikwa), Parkland, Prairie West and South East Community Colleges.

Source: Community College Annual Reports, 1985-86.

Female Faculty Members Within Saskatchewan's Universities

Chart 5
Saskatchewan Universities:
Percentage of Full-Time Female Faculty Members By Rank
1985-1988



Source: The University of Regina Statistical Fact Book 1985-86, pp. 173-174.
The University of Saskatchewan Statistics, Volume XIV, August 1988, p. 6.1.

University of Regina

In 1985-86, only 17% of faculty members at the University of Regina were women (see Table 7). The faculty of Education had one of the highest percentages of female faculty at 29%. Within the Science faculty, 8% of faculty members were women.

There were few women at the higher academic levels (see Chart 5). Three out of every one hundred full professors were female while slightly more than one half of lecturers/instructors were women. Of the total female academic staff, approximately one in twenty was a full professor; among male academic staff, approximately two out of five were full professors. As well, men currently hold all five senior administrative positions at the associate vice-president level and above at the University of Regina (Saskatchewan Education, University Affairs Branch).

Table 7
University of Regina: Full-Time Academic Staff by Rank and Sex
1985-86

	Sex					
	Male		Female		Total	
Rank	#	%	#	%	#	%
Professor	132	97	4	3	136	36
Associate Professor	128	82	28	18	156	41
Assistant Professor	47	65	25	35	72	19
Lecturer/Instructor	8	47	9	53	17	4
Total	**316**	**83**	**65**	**17**	**381**	**100**

Source: The University of Regina Statistical Fact Book, 1985-86, pp. 173-174.

University of Saskatchewan

A similar profile of female faculty members is evident at the University of Saskatchewan (see Table 8). In 1987-88, 13% of all faculty members were female. Women were under-represented at all faculty levels; one-third of the lecturers and instructors and 3% of professors were female. One out of every two male faculty members was likely to be a professor while one out of every ten female faculty members was likely to be at the same level. In addition in 1988-89, one of twelve senior administrative positions at the associate or assistant vice-president level and above at the University of Saskatchewan is held by a woman (Saskatchewan Education, University Affairs Branch).

Table 8
University of Saskatchewan: Faculty by Rank and Sex, 1987-88

	Sex					
	Male		Female		Total	
Rank	#	%	#	%	#	%
Professor	500	97	18	3	518	47
Associate Professor	250	83	52	17	302	28
Assistant Professor	167	74	60	26	227	21
Lecturer/Instructor	31	66	16	34	47	4
Total	**948**	**87**	**146**	**13**	**1094**	**100%**

Source: The University of Saskatchewan Statistics, Volume XIV, August, 1988, p.6.1.

As indicated below, approximately 80% of male faculty members at the University of Saskatchewan had a doctorate or professional degree as compared to nearly one half of female faculty members (see Table 9). Female faculty members were more likely than male faculty members to have a master's degree.

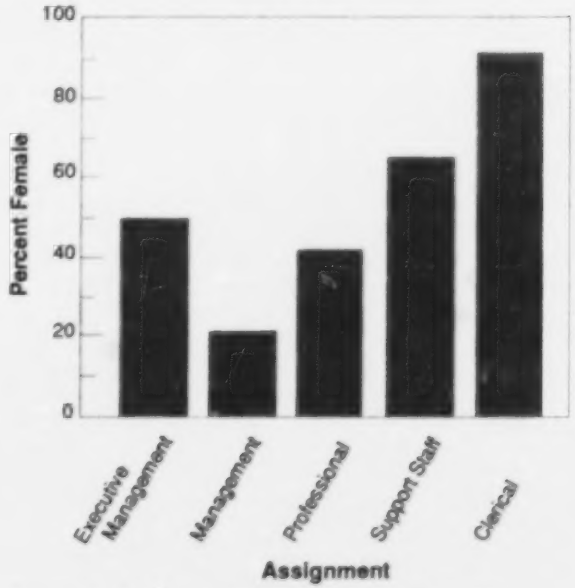
Table 9
University of Saskatchewan Faculty by Highest Degree Attained and Sex, 1987-88

Highest Degree Attained	Sex: Male #	Male %	Female #	Female %	Total #	Total %
Ph.D.	585	62	53	36	638	58
Professional	179	19	16	11	195	18
Masters	143	15	56	38	199	18
Bachelors	34	4	19	13	53	5
Other	7	1	2	1	9	1
Total	**948**	**100**	**146**	**100**	**1094**	**100**

Source: The University of Saskatchewan Statistics, Volume XIV, August, 1988, p.6.2.

Female Employees Within Saskatchewan Education

Chart 6
Saskatchewan Education:
Percentage of Female Employees By Assignment
1987-1988



Source: Saskatchewan Education, Human Resources Division

There is a higher proportion of female administrators within Saskatchewan Education than in other organizations within the education system. As shown in Chart 6 and Table 10 below, in 1987-88, one-half of the executive managers within Saskatchewan Education were female. In other management positions, approximately one-fifth were female.

Table 10
Saskatchewan Education: Staff by Assignment and Sex, 1987-88

Assignment	Sex: Male #	Male %	Female #	Female %	Total #	Total %
Executive Management	6	50	6	50	12	2
Management	27	79	7	21	34	6
Professional	73	57	55	43	128	23
Support Staff	38	34	74	66	112	20
Clerical	23	8	248	92	271	49
Total	**167**	**30**	**390**	**70**	**557**	**100**

Source: Saskatchewan Education, Human Resources Division.

Participation of Female Students Within Saskatchewan's Education System

Overview

The following section will document the participation of female students in the K-12 and post-secondary systems in Saskatchewan. Some of the major conclusions that can be drawn from this review are:

Participation at Grade 12 Level

Although there are concerns in other jurisdictions about lower female enrolment in non-compulsory secondary level mathematics and science courses, in Saskatchewan there is similar participation and achievement by young men and women in those subjects at the Grade 12 level.

Participation in Non-Traditional Post-Secondary Programs

Despite having the math and science requirements for non-traditional programs at the post-secondary level, women are under-represented in science and engineering faculties and technologies as well as in the apprenticeship and pre-employment trades programs.

Participation in Traditional Post-Secondary Programs

Women are over-represented in programs leading to traditionally female occupations, e.g., Education, Nursing, Secretarial, and Social Work.

Participation at the University Level

Women have increased their enrolment at the university level over the past ten years, particularly in professional faculties such as Dentistry, Law, Medicine and Veterinary Medicine.

Graduate Degrees

Overall, women are much less likely than men to earn graduate degrees.

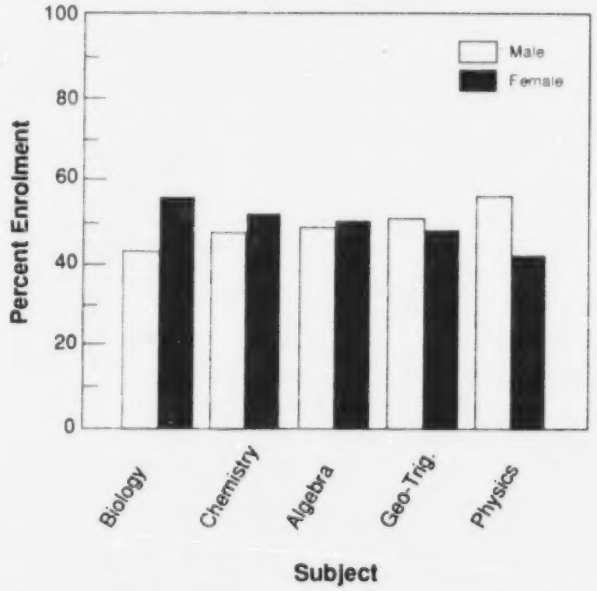
Decentralized/Part-time Programs

Generally, women are the majority of participants in programs offered on a decentralized or part-time basis.

Female Enrolment in the K-12 System

Female Enrolment and Achievement in Grade 12 Mathematics and Science Courses

Chart 7
Saskatchewan:
Percentage of Enrolment by Sex
In Grade 12 Level Math and Science Subjects
1986-1987



Source: Saskatchewan Education, Provincial Summary Report on Level 30 Subjects Completed in 1986-87 School Year, Table 6

There is a concern in other Canadian provinces and elsewhere that high school girls are less likely than high school boys to enrol in non-compulsory mathematics and science courses. Such a gap in their education limits the education and employment opportunities available to young women, particularly in non-traditional areas.

However, in Saskatchewan, there is generally equal participation and achievement of young men and women in Grade 12 math and sciences (see Chart 7

and Table 11). For example, in 1986-87, females were the majority of students in Biology (56%), Chemistry (52%) and Modern Algebra (51%) courses. Physics, at 44%, had the lowest enrolment of young women in the math and science area but that percentage is a 5% increase over their 1981-82 enrolment.

Table 11
Saskatchewan: Enrolment by Sex in Grade 12 Level Math and Science Subjects, 1986-87

Subject	Sex: Male #	Male %	Female #	Female %	Total #
Biology (Modern and BSCS)	3871	44	4955	56	8826
Chemistry	3402	48	3666	52	7068
Algebra	4852	49	5146	51	9998
Geometry-Trigonometry	3482	52	3203	48	6685
Physics	3311	56	2564	44	5875

Source: Saskatchewan Education, Provincial Summary Report on Level 30 Subjects Completed in 1986-87 School Year, Table 6.

Young women in Saskatchewan do as well as young men in math and science courses. As indicated in Table 12, young women had slightly higher marks in both Modern and BSCS Biology courses, Modern Algebra and Modern Geometry-Trigonometry and slightly lower marks in Chemistry and Physics.

Table 12
Average Marks in Grade 12 Level Maths and Sciences by Sex Saskatchewan, 1986-87

Subject	Male Average Mark	Female Average Mark	Total Average Mark
Biology (Modern)	67%	68%	67%
Biology (BSCS)	66	67	67
Chemistry	70	69	69
Modern Algebra	66	67	66
Modern Geo-Trig	70	71	70
Physics	69	68	68

Source: Saskatchewan Education, Provincial Summary Report, Level 30 Subjects Completed in 1986-87 School Year, Table 6.

A comparison of the number of young women taking Grade 12 sciences and maths in 1985-86 in Saskatchewan to the total female enrolment in that year indicates that approximately seven out of ten Grade 12 girls took Modern Algebra and Biology and one out of two took Chemistry (see Table 13). The percentage of female enrolment fell to approximately 45% for Modern Geometry-Trigonometry and to 38% for Physics. In comparison, approximately nine out of ten Grade 12 girls took English A or B and Social Studies/History which are compulsory subjects.

Table 13
Male/Female Enrolment in Selected Level 30 Subjects as a Percentage of Total Grade 12 Male/Female Enrolment Saskatchewan 1985-86

Subject	Male % of Total Enrolment	Female % of Total Enrolment	Total % of Total Enrolment
Biology (Modern & BSCS)	54	70	62
Chemistry	46	50	48
English A	86	90	88
English B	84	89	87
Modern Algebra	70	71	71
Modern Geo-Trig	49	45	47
Physics	48	38	43
Social Studies/History	86	91	88

Source: Saskatchewan Education, Evaluation and Student Services Branch.

Information provided in *The Idea Book: A Resource for Improving the Participation and Success of Female Students in Math, Science and Technology*, a recent publication of the Canadian Teachers' Federation, indicates that in some other provinces significantly fewer girls than boys take math and science courses. For example, in Ontario in 1982, 30% of students taking physics were female. Similarly, in 1983 in Alberta, slightly more than one-quarter of those enrolled in senior mathematics courses were girls. British Columbia reported that girls wrote 44% of provincial algebra exams, 42% of chemistry exams and 21% of provincial physics exams in June, 1987.

There appears to be no immediately obvious explanation for the comparatively higher participation of young Saskatchewan women in maths and sciences. One reason may be the high school graduation requirements which were, in 1986-87, one math and one science in Grade 10 and one math or science in either Grade 11 or 12. These requirements may encourage girls to continue in these subjects in Grade 12. Implementation of the Core Curriculum will increase requirements to one math and one science in Grade 11 or 12. As well, students may believe that exceeding the minimum mathematics and science requirements increases their chances of acceptance into the post-secondary program of their choice. Another factor may be the limited number of subject options available in some rural schools.

Traditional patterns are evident in Saskatchewan, however, in the enrolment of young men and women in Home Economics related and Industrial Arts

programs. In 1986-87, 80% or more of students in Home Economics related subjects at the Grade 12 level were girls while 92% of Grade 12 Industrial Arts students were boys (Saskatchewan Education, Evaluation and Student Services Branch). Of interest also is that, at the Grade 12 level, girls made up approximately one-third of the enrolment in Computer Science 30.

Female Early School Leavers in Saskatchewan

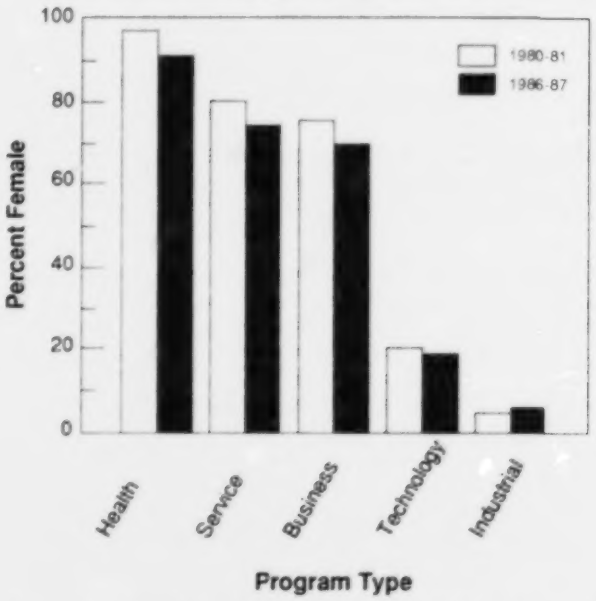
A 1983 study on early school leavers in Saskatchewan sponsored by Saskatchewan Education and the Saskatchewan School Trustees Association found that females were less likely than males to leave school before graduation. However, the projected cumulative drop-out rate for girls in grades 8 to 12, taking 1980-81 as the base year, was 27%. Although this is lower than the projected rate for boys of 36%, it still translates into a loss of approximately one-quarter of female students between grades 8 and 12.

Results of the study indicated that female early school leavers tended to perceive the quality of school life more positively than male early school leavers. However, although the study did present the most common reasons for leaving school early, those responses were not analyzed by sex. Overall, students were most likely to leave school because they felt it was wasting their time, that what they were learning was not relevant to their choice of career or that they wanted more freedom.

Female Enrolment in the Post-Secondary System

Female Enrolment In the Saskatchewan Institute of Applied Science and Technology

Chart 8
Saskatchewan Institute of Applied Science and Technology (SIAST): Percentage of Female Enrolment By Program Type, 1980-81 and 1986-87



Source: Saskatchewan Education, Student Information System

An overview of female enrolment in the four technical institutes which are now part of the Saskatchewan Institute of Applied Science and Technology (SIAST) indicates that women are, generally, over-represented in business, health and service programs and under-represented in industrial and technology/technical programs (see Table 14). This pattern has not changed significantly since 1980-81 (see Chart 8).

In 1986-87, approximately nine out of ten students in industrial programs were male while approximately nine out of ten students in health-related programs were female. An analysis of individual program enrolments in 1986-87 indicates that approximately 95% of the students enrolled in the secretarial studies, commercial or office education programs were female while males made up 95% or more of students enrolled in engineering-related technology programs.

Table 14
Saskatchewan Institute of Applied Science and Technology Female Enrolment by Program Categories, 1986-87

	Female Enrolment									
	Kelsey Campus[1]		Palliser Campus[2]		Wascana Campus[3]		Woodland Campus[4]		Total	
Program Categories	#	%	#	%	#	%	#	%	#	%
Business	54	65	348	55	570	84	30	94	1002	70
Health	676	94	*	*	615	90	*	*	1291	92
Industrial	27	4	20	6	16	6	3	5	66	5
Service	310	77	*	*	62	65	16	100	388	75
Technology	103	28	21	6	10	11	*	*	134	17
Total	**1170**	**52**	**389**	**29**	**1273**	**71**	**49**	**44**	**2881**	**52**

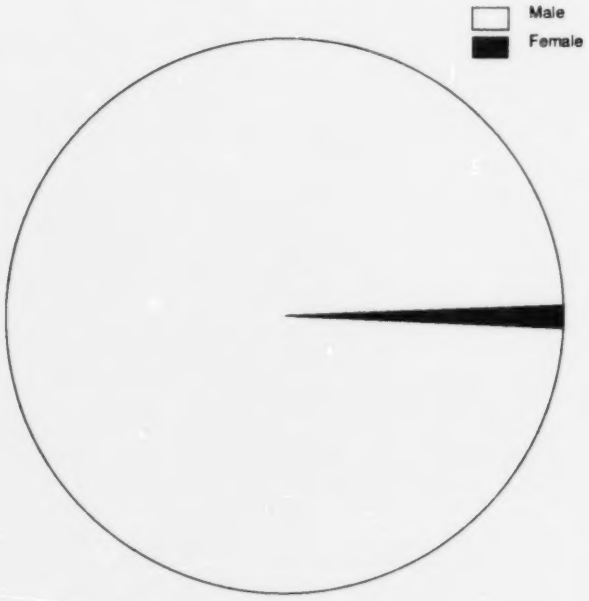
[1] Formerly Kelsey Institute of Applied Arts and Science, Saskatoon
[2] Formerly Saskatchewan Technical Institute, Moose Jaw
[3] Formerly Wascana Institute of Applied Arts and Science, Regina
[4] Formerly Northern Institute of Technology, Prince Albert; enrolment figures are only available for 1985-86.
* Program type not offered.

Source: Saskatchewan Education, Student Information System

Female Enrolment in the Apprenticeship Program

Very few women were enrolled in the Apprenticeship Program in Saskatchewan in December, 1987 (see Chart 9). Of a total enrolment of 3,406 apprentices, 39 or 1% were female. Of those 39 female apprentices, one-half (51%) were in the Cosmetologist trade and one-quarter (26%) were in the Cook trade (see Table 15).

Chart 9
Saskatchewan Apprenticeship Program: Percentage of Enrolment by Sex 1987



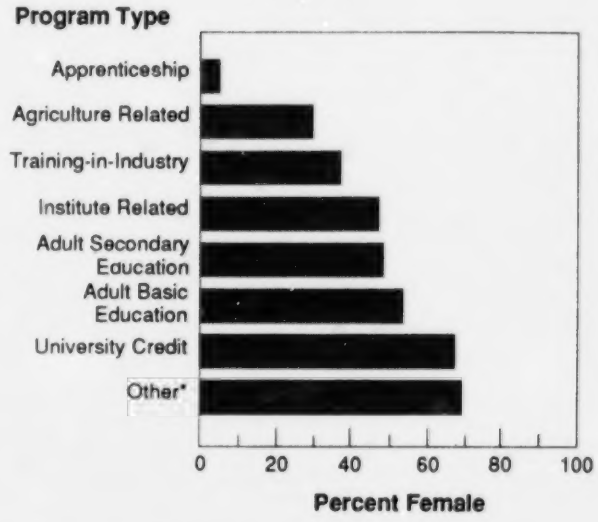
Source: Saskatchewan Education, Apprenticeship and Trade Certification Branch

Table 15
Saskatchewan Apprenticeship Program: Enrolment by Trade and Sex December, 1987

Trade	Sex: Male #	Male %	Female #	Female %	Total #	Total %
Agricultural Machinery Technician	22	100	-	-	22	1
Boilermaker	14	100	-	-	14	-
Bricklayer	34	100	-	-	34	1
Carpenter	589	100	2	-	591	17
Cement Finisher	10	100	-	-	10	-
Cook	54	84	10	16	64	2
Cosmetologist	2	9	20	91	22	1
Crane & Hoist Operator	5	100	-	-	5	-
Electrician	513	100	2	-	515	15
Glassworker	10	100	-	-	10	-
Heavy-Duty Equipment Mechanic	295	100	1	-	296	9
Industrial Instrument Maintenance Mechanic	7	100	-	-	7	-
Industrial Mechanic/ Millwright	87	100	-	-	87	3
Insulator	1	100	-	-	1	-
Motor Vehicle Body Repairer	178	99	1	1	179	5
Machinist	67	100	-	-	67	2
Motor Vehicle Mechanic	610	100	2	-	612	18
Painter & Decorator	18	100	-	-	18	-
Plumber	318	100	-	-	318	9
Power Lineman	117	100	-	-	117	3
Radio & T.V. Repairer	20	100	-	-	20	1
Refrigeration and Air-Conditioning Mechanic	64	100	-	-	64	2
Roofer	10	100	-	-	10	-
Sheet Metal Worker	121	100	-	-	121	4
Sprinkler System Installer	20	100	-	-	20	1
Steamfitter/Pipefitter	38	100	-	-	38	1
Tilesetter (Ceramic)	6	100	-	-	6	-
Truck & Transport Mechanic	3	100	-	-	3	-
Welder	134	99	1	1	135	4
Total	**3367**	**99**	**39**	**1**	**3406**	**100**

Female Enrolment in Saskatchewan Regional College Programs

Chart 10
Saskatchewan Regional Colleges: Percentage of Female Enrolment By Program Type 1985-1986



* Includes Personal/Career, Home Skills, Family/Community, Hobbies, Arts and Crafts, Physical Development Related Programs.

Source: Saskatchewan Education, Student Information System

Enrolment statistics for the year 1985-86 indicate that women made up nearly two-thirds (65%) of the total enrolment in the Regional Colleges throughout the province (see Table 16). Approximately half (54%) of those enrolled in Adult Basic Education courses were female (see Chart 10). Seven out of every ten students in University Credit programs were women. Nearly one half of the participants in the Institute Certificate and Diploma program category were female. The participation of women in individual programs in those areas tended to follow the same pattern as in the general SIAST population.

Table 16
Saskatchewan Regional Colleges: Program Enrolment by Sex, 1985-86

Program Type[1]	Sex: Male #	Male %	Female #	Female %	Total* #
Apprenticeship	131	94	9	6	140
Agriculture Related	1020	70	440	30	1469
Training-in-Industry	149	63	88	37	237
Institute Related	3034	53	2675	47	5716
Adult Secondary Education	2109	52	1982	48	4146
Adult Basic Education	2896	46	3409	54	6346
University Credit	1019	31	2235	69	3261
Other[2]	19647	30	45329	70	65236
Total	**30005**	**35**	**56167**	**65**	**86551**

[1] Includes enrolment from the former Coteau Range, Prince Albert Region, Regina Plains and Saskatoon Region Community Colleges which are now part of the Saskatchewan Institute of Applied Science and Technology.

[2] Includes Personal/Career, Home Skills, Family/ Community, Hobbies, Arts and Crafts, and Physical Development Related Programs.

* Total includes those who did not indicate their sex

Source: Saskatchewan Education, Student Information System.

Female Enrolment in the Saskatchewan Skills Development Program

The Saskatchewan Skills Development Program (SSDP) is designed to assist people receiving payments under the Social Assistance Plan in Saskatchewan to upgrade their educational standing, to acquire additional skills through pre-employment programs or to gain work experience.

For the year 1985-86, approximately six out of ten SSDP students were female (see Table 17). The proportion of female students increased to approximately two out of three students in 1986-87. No information is presently available on the relative proportion of women in each of the components of SSDP.

Table 17
Saskatchewan Skills Development Program: Enrolment by Year and Sex

Year	Sex: Male #	Male %	Female #	Female %	Total* #
1984-85	1145	46	1337	54	2498
1985-86	1316	38	2131	62	3452
1986-87	1207	33	2414	67	3622
Total	**3668**	**38**	**5882**	**62**	**9572**

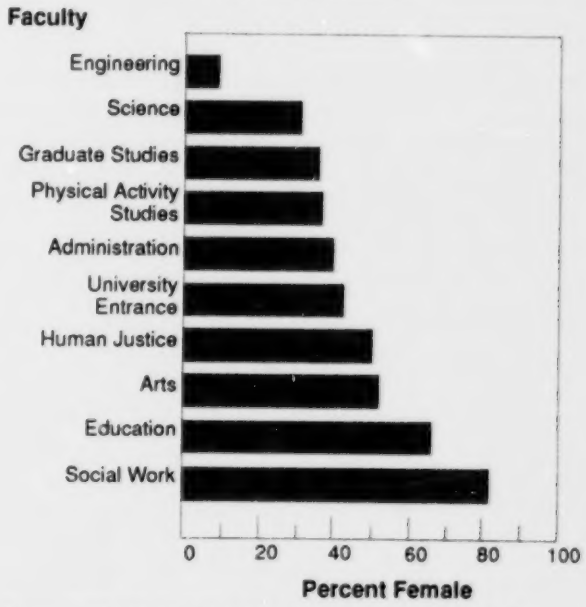
* Total includes those who did not indicate their sex.

Source: Saskatchewan Education, Saskatchewan Skills Development Program.

Female Enrolment in Saskatchewan's Universities

University of Regina

Chart 11
University of Regina: Percentage of Full-Time Female Enrolment By Faculty 1986 Winter Semester



Source: The University of Regina Statistical Fact Book, 1985-86, p. 83.

Women made up nearly one-half (48%) of the full-time enrolment for the 1986 Winter Semester at the University of Regina (see Chart 11 and Table 18). Females were over-represented in some traditional faculties for women and under-represented in some non-traditional faculties. For example, four out of five Social Work students and two out of three Education Students were women. However, in the Science faculties, one-third of the students were female and one Engineering student in ten was a woman.

Table 18
University of Regina: Full-Time Enrolment by Faculty and Sex
1986 Winter Semester

Faculty	Male		Female		Total	
	#	%	#	%	#	%
Engineering	247	90	26	10	273	5
Science[1]	627	68	299	32	926	17
Graduate Studies	74	62	45	38	119	2
Physical Activity Studies	46	61	29	39	75	1
Administration	286	57	215	43	501	9
University Entrance	404	54	340	46	744	14
Human Justice	11	48	12	52	23	-
Arts[2]	722	47	814	53	1536	29
Education[3]	312	34	609	66	921	17
Social Work[4]	30	18	139	82	169	3
Other	26	46	30	54	56	1
Total	**2785**	**52**	**2558**	**48**	**5343**	**100**

[1] Includes the Science, Campion Science, Luther Science and Saskatchewan Indian Federated College (SIFC) Science faculties.

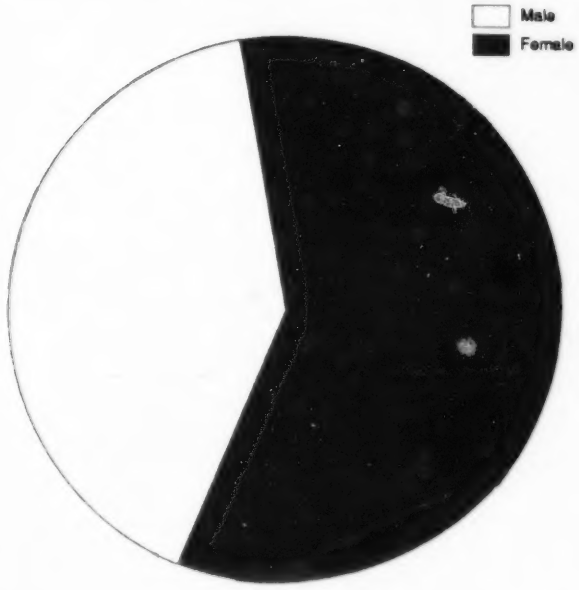
[2] Includes the faculties of Arts, Campion Arts, Luther Arts and SIFC Arts.

[3] Includes the Education and SIFC Education faculties.

[4] Includes the Social Work and SIFC Social Work faculties.

Source: The University of Regina: Statistical Fact Book, 1985-86, p.83.

Chart 12
University of Regina:
Percentage of Part-Time Enrolment By Sex
1986 Winter Semester

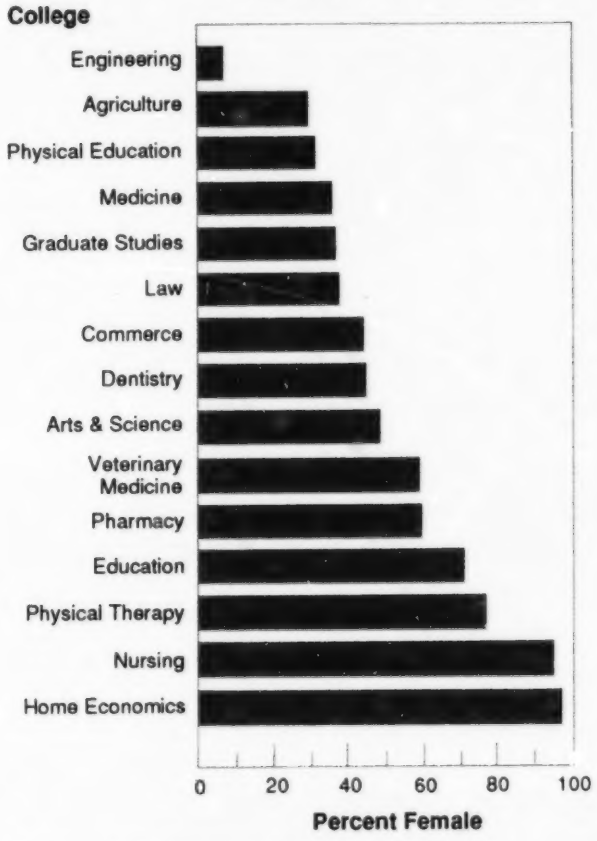


Source: The University of Regina Statistical Fact Book, 1985-86, p. 84.

Approximately six out of ten part-time students enrolled in the Winter 1986 semester at the University of Regina were women (see Chart 12). The part-time enrolment pattern for women is similar to that of full-time enrolment. Women are more likely than men to be enrolled in the Arts, Education, Social Work and Extension faculties. Approximately one-third of the part-time students in the Science faculties were female. Again, one out of every ten part-time Engineering students was female.

University of Saskatchewan

Chart 13
University of Saskatchewan:
Percentage of Female Full-Time
Enrolment By College
1987-1988



Source: The University of Saskatchewan Statistics, Volume XIV, August, 1988, pp. 2.6-2.7, 2.11

Women made up 48% of the full-time enrolment at the University of Saskatchewan during 1987-88 (see Table 19). Here, too, females were the majority of students in traditionally female program areas such as Home Economics (97%), Nursing (96%), Physical Therapy (77%) and Education (72%) (see Chart 13).

However, approximately six out of ten students in Veterinary Medicine were female. As well, approximately four out of ten students in Dentistry, Medicine and Law were female.

The enrolment figures show that nearly half of the students in Arts and Science were female but there was no indication of the number of women majoring in the sciences. In the College of Engineering, six out of every one hundred students were female.

Table 19
University of Saskatchewan: Full-Time Enrolment by College and Sex
1987-88

	Sex					
	Male		Female		Total	
College	#	%	#	%	#	%
Engineering	956	94	64	6	1020	7
Agriculture	353	70	150	30	503	4
Physical Education	227	68	109	32	336	2
Medicine	151	64	84	36	235	2
Graduate Studies	772	63	454	37	1226	9
Law	192	62	116	38	308	2
Commerce	732	56	575	44	1307	10
Dentistry	53	55	44	45	97	1
Arts & Science	2827	52	2655	48	5482	40
Veterinary Medicine	116	42	160	58	276	2
Pharmacy	119	41	171	59	290	2
Education	550	28	1419	72	1969	14
Physical Therapy	17	23	56	77	73	1
Nursing	12	4	323	96	335	2
Home Economics[1]	5	3	178	97	183	1
Total	**7082**	**52**	**6558**	**48**	**13640**	**100**

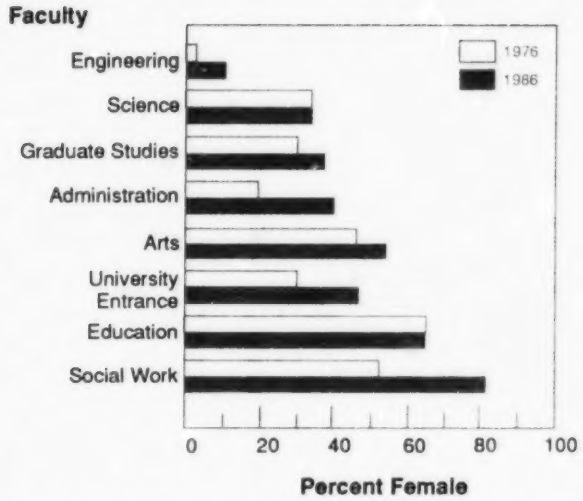
[1] The College of Home Economics is scheduled to close on June 30, 1990; students have not been admitted to the college since 1986-87.

Source: The University of Saskatchewan Statistics, Volume XIII, August 1988, pp.2.6-2.7 and 2.11

Long-term Comparison of Female Enrolment at Saskatchewan's Universities

There has been a significant increase in the number of women enrolled at Saskatchewan universities over the past ten years. Female students made up 70% of the increase in full-time enrolment at the University of Saskatchewan and 58% of the increase in full-time enrolment at the University of Regina between 1976 and 1986.

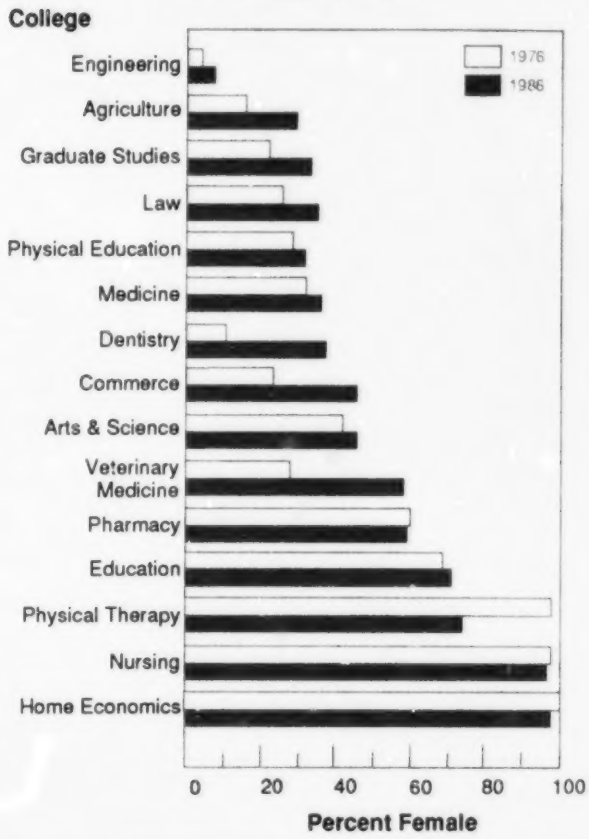
At the University of Regina, the greatest increase in the percentage of women between 1976 and 1986 was in the Administration (+24%) and Social Work (+30%) faculties (see Chart 14).



Source: University of Regina Statistical Fact Book, Up to 1978, p. 3 (g) and 1985-86, p. 83.

At the University of Saskatchewan, the percentage of female students increased significantly in the following colleges between 1975-76 and 1986-87: Commerce (+25%), Dentistry (+28%), and Veterinary Medicine (+31%) (see Chart 15). Women comprised more than one-third of the law students at the University of Saskatchewan in 1986-87 as compared to approximately one-quarter of those students in 1975-76. Approximately one-third of graduate students in 1986-87 at the University of Saskatchewan were women as compared to approximately one-fifth in 1975-76.

Chart 15
University of Saskatchewan:
Percentage of Female Full-Time Enrolment
By College
1975-76 and 1986-87

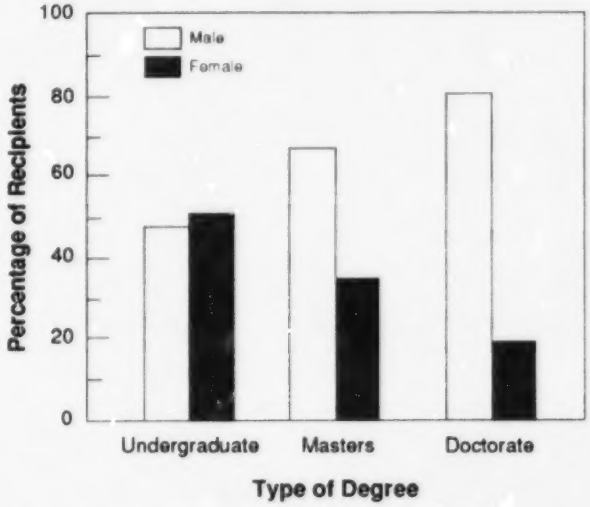


Source: The University of Saskatchewan Statistics, August 1976, p. 2.24 and June 1987, pp. 2.6-2.7, 2.11

Women, however, have not made significant progress in the number enrolled in Science and Engineering faculties. The percentage of women in Engineering increased from 2% to 10% at the University of Regina (see Chart 14) and from 3% to 8% at the University of Saskatchewan (see Chart 15). Between 1976 and 1986, female enrolment in the Science faculties at the University of Regina remained the same at 32% (see Chart 15).

Female Enrolment in Graduate and Post-Graduate Programs

Chart 16
University of Saskatchewan:
Percentage of Degrees Awarded by Sex
1987



Source: The University of Saskatchewan Statistics, Volume XIV, August 1988, p. 4.9.

At the University of Saskatchewan in 1987, women earned more than half (52%) of undergraduate degrees (see Chart 16). However, women were less likely than males to receive graduate degrees. One-third (33%) of masters degrees and one-fifth (19%) of doctorate degrees were awarded to women.

As shown in Table 20, the undergraduate degrees awarded reflected the greater representation of women in some of the professional colleges at the University of Saskatchewan. For example, women received more than half of the Veterinary Medicine (54%) and Pharmacy (52%) degrees and nearly four out of ten of the Medical and Law degrees. The fewest number of degrees were awarded to women in Science (29%), Dental Medicine (15%) and Engineering (7%).

However, in all disciplines where a significant number of Masters degrees were awarded, women received fewer graduate degrees than would be expected based on their numbers at the undergraduate degree level (see Table 20). For example, although three-quarters (74%) of Bachelor of Education recipients were women, slightly more than one-half (53%) of Master of Education degrees went to women.

Table 20
University of Saskatchewan: Degrees Awarded by Sex, 1987

Degree	Sex				Total
	Male		Female		
	#	%	#	%	#
Undergraduate Degrees					
B. Engineering	203	93	16	7	219
Dr. Dental Medicine	17	85	3	15	20
Bachelor of Science	237	71	96	29	333
B.Sci. in Agriculture	68	65	37	35	105
B.Sc. Phys. Ed.	41	63	24	37	65
B. Law	62	62	38	38	100
Dr. Medicine	38	62	23	38	61
B. Commerce	153	51	146	49	299
B.Sc. Pharmacy	32	48	35	52	67
Bachelor of Arts	341	46	402	54	743
Dr. Veterinary Medicine	32	46	38	54	70
B.Sc. Phys. Therapy	7	33	14	67	21
B. Education/Music Ed.	166	26	481	74	647
B. Fine Arts/Music	5	26	14	74	19
B.Sc. Nursing	2	2	92	98	94
B.Sc. Home Ec.	-	-	44	100	44
Undergraduate Total	**1404**	**48**	**1503**	**52**	**2907**
Masters Degrees					
Master of Engineering	2	100	-	-	2
Master of Bus. Admin.	25	89	3	11	28
Master of Agriculture	3	75	1	25	4
Master Veterinary Science	9	75	3	25	12
Master of Science	95	73	36	27	131
Master of Arts/Fine Arts	20	53	18	47	38
Master of Law	1	50	1	50	2
Master of Education	20	47	23	53	43
Master Cont. Ed.	-	-	2	100	2
Masters Total	**175**	**67**	**87**	**33**	**262**
Doctorate Degrees					
Dr. of Philosophy/Literature/Science	35	81	8	19	43
Graduate Total	**210**	**69**	**95**	**31**	**305**
Total	**1614**	**50**	**1598**	**50**	**3212**

Source: The University of Saskatchewan Statistics, Volume XIV, August 1988, p.4.9.

Barriers for Females and Strategies to Improve Equity

Introduction

The following section discusses the barriers to female students and employees within the education system and the strategies to overcome those barriers that have been described in the literature or in interviews with professionals in the educational field.

As a means of distinguishing among the various barriers, they will be categorized as either personal, situational or institutional (Ekstrom, 1985):

- **Personal barriers** refer to individual characteristics which may deter girls or women from choosing non-traditional programs or occupations;
- **Situational barriers** refer to the individual's life circumstances that affect her ability to participate in non-traditional programs and occupations; and
- **Institutional barriers** are practices and procedures that may make it difficult for women to take part or participate equally in the institution's programs or employment opportunities.

Just as these barriers overlap, strategies to overcome these barriers must be developed as part of a comprehensive and interrelated approach to achieving sex equity throughout the educational system. All strategies undertaken must be based on an understanding of what the barriers are and a recognition of the need to provide equal opportunities for and promote equal participation of girls and boys, women and men within the educational system.

These strategies can only be successful where there is a clear commitment from individual organizations to achieving sex equity in education and the expectation that all individuals within each organization will work toward achieving the common goal. Crucial elements in implementing sex equitable practices are obtaining the co-operation and support of all employees and using their knowledge and skills to design strategies appropriate to each organization.

Personal Barriers and Related Strategies

Barriers

The personal barriers females face as students and employees stem from societal expectations of and attitudes toward women and their internalization of those expectations. Males and females in our society are subject to sex-role stereotyping. They are assigned "characteristics, habits, abilities and expectations on the basis of their sex rather than their attributes as individuals" (Sundal-Hansen, 1984). The behavioural expectations of boys and girls, men and women are reinforced by parents, teachers, friends, the media and the community at large (Science Council of Canada, 1982).

The major role for women in our society is defined as wife and mother, nurturer and caregiver and the expectation is that women's work in the paid labour force will be an extension of the supportive role they are assumed to play in the home. Therefore, girls and women tend not to see themselves in non-traditional roles. A Labour Canada study on the career aspirations of girls which included data from Saskatchewan found that, although many girls were aware of non-traditional opportunities, they did not consider them for themselves (Labour Canada, 1985).

Women may also initially perceive work as a stopgap measure until they marry and have a family despite statistical evidence that they are likely to remain in the labour force for thirty years or more. Therefore, women may not see the need for career planning and the consideration of all their occupational options.

As well, the internalization of society's expectations of passivity and dependence may have a negative effect on women's self-concept, self-confidence and sense of control (Sundal-Hansen, 1984). In addition, females are less likely than males to gain experience in non-traditional areas in their childhood or on the job because of the general expectations of appropriate behaviour of girls and women.

Strategies

Some of the strategies suggested for overcoming personal barriers for girls and women are:

- Raising awareness among students, employees and the general public about the opportunities available for females in non-traditional programs and occupations, the success females have had in non-traditional areas and the increasing participation of women in the labour market.
- Active recruitment of and encouragement to girls and women to enter and remain in non-traditional programs and occupations.
- Providing opportunities in educational programs and employment for girls and women to gain background experience in non-traditional areas.

- Including measures in educational programs to build women's self-confidence and enhance their self-concept.
- Promoting attitudinal change among boys and girls, men and women regarding appropriate roles for males and females.

Situational Barriers and Related Strategies

Barriers

The major situational barriers for female students and employees are linked to their family and/or work responsibilities. Women are still largely responsible for home and child care. This creates time constraints which may make it difficult for women to take training or cope with the demands of non-traditional occupations. A lack of suitable child care services may also prevent women from pursuing education or career opportunities.

Women may have difficulty financing their training because of their generally lower incomes, their lack of access to family funds or their unwillingness to spend family money on their own education. Women may be unable to attend training programs or accept other employment opportunities because of distance and an inability to move their families. As well, women in non-traditional programs and occupations may not have the support of their family and friends.

Another situational barrier may be the lack of educational prerequisites for particular non-traditional programs or occupations. In addition, women are unlikely to choose non-traditional programs or occupations when they observe the segregation by sex within the labour market and, therefore, see limited employment opportunities for them in those areas. This lack of role models becomes a self-fulfilling prophecy: the fewer women there are in particular programs and occupations, the less likely women are to choose those options.

Strategies

Some of the strategies developed to overcome these situational barriers include:

- Provision of child care services at the institution, place of employment or in the community.
- Recognition of the dual responsibilities of female students and employees in institutional procedures and employment practices, e.g., scheduling, parental leave.
- Provision of financial assistance for female students and employees seeking further training.
- Review of criteria for financial assistance to ensure they do not discriminate against women.
- Provision of programs to help women acquire educational prerequisites and use of alternatives to formal educational requirements as admission criteria.
- Use of distance education methodologies.
- Increasing the number of women in non-traditional occupations within the labour market through such measures as employment equity programs.
- Use of role models to inform males and females of the success women have had and the opportunities available for them in non-traditional areas.
- Development of personal support networks for female students and employees.

Institutional Barriers and Related Strategies

Barriers

There are several institutional barriers for female students and employees that also stem from sex-stereotyped attitudes and expectations and a lack of recognition of the needs of girls and women.

The attitudes and expectations of instructors, counsellors and administrators may result in differential treatment of girls and women in many aspects of the educational and work setting. Sex-stereotyped attitudes and expectations may have a negative effect on the treatment of females within the classroom, the career counselling they receive and the instructional materials they are given. Sex role stereotyping also negatively affects the hiring and promotion of female employees, the training opportunities they are given and their interactions with others in the organization. Both female students and employees may be subject to sexual harassment.

Some specific examples of this differential treatment include the failure to take the career aspirations of female students and employees as seriously as those of males, the use of instructional materials which ignore the contributions and achievements of women, and the exclusion of female employees from the informal decision-making systems within the organization. The lack of sex equity policies and action plans at the institutional level allows the continuation of these and other practices that hinder the equal participation of women within the educational system.

Another institutional barrier for girls and women that is receiving increased attention in the literature is the "androcentrism" or "male-centeredness" within the education system (Shakeshaft, 1987). For example,

research has shown that boys receive more of their teachers' time and attention than girls (Sadker and Sadker, 1986). Another aspect of this concept is the effect on career advancement for women of the acceptance of the typical male career path as the norm for entry into administrative and other senior positions. As well, some women may not be attracted to management positions as they have traditionally been defined.

Strategies

Some strategies suggested for overcoming institutional barriers are as follows:

- Development and implementation of sex equity policies within the organization.
- Development and use of sex equitable curriculum and instructional materials throughout the educational system.
- Provision of non-sexist career counselling throughout the educational system.
- In-service and pre-service training in sex-equitable teaching practices throughout the educational system.
- Development and implementation of sexual harassment policies for students and employees throughout the education system.
- Review of hiring, promotional and staff development policies and practices to ensure they do not discriminate against women.
- Seminars for teachers, counsellors, administrators and governing bodies to examine their attitudes and expectations of girls and women, discuss the barriers women face as students and employees and strategize on ways to achieve sex equity within their own organization.
- Investigation of alternate learning and management styles for women.

Employment and Education Equity Plans

Many public and private organizations in Saskatchewan and across Canada are addressing barriers to equality for women and other groups through employment and education equity plans. Equity plans seek to increase the number of females in areas where they are under-represented through the elimination of systemic barriers such as those described previously and the implementation of special measures such as the strategies outlined here.

The essential elements within equity plans are:

- a commitment by the organization to achieving equity;
- the establishment of a representative committee to oversee the development and implementation of the plan;
- an analysis of the workforce or student body and a documentation of areas of under-and over-representation;
- the setting of goals and timetables based on that analysis;
- the identification of barriers;
- the recommendation of special measures to overcome those barriers; and
- the development of a monitoring system.

Organizational commitment has been found to be one of the most important elements within successful equity plans.

The Saskatchewan Human Rights Commission has approved several employment and education equity plans within the province. However, some organizations have established equity plans without involving the Commission.

The federal government's equity initiatives include the Federal Contractors Program. Under it, suppliers of goods and services with 100 or more employees bidding on government contracts worth $200,000 or more must establish employment equity plans for women and three other designated groups. This program also applies to universities, such as the University of Saskatchewan, which receive individual federal research grants of $200,000 or more.

As well, provincial governments are moving toward an increased emphasis on employment equity objectives. Perhaps, in time, these governments may also associate achievement of equity objectives with continued financial support.

Current Initiatives in Saskatchewan

Introduction

Many initiatives have already been undertaken in Saskatchewan to promote sex equity within the education system. Those strategies will be outlined below as they relate to the personal, situational and institutional barriers for girls and women. There are likely other methods being used in individual institutions that are not included here. It is hoped that discussion of this paper will create a greater awareness of the range of initiatives already undertaken in the province to change the participation patterns of female students and employees.

Initiatives to Address Personal Barriers

Some of the strategies used in Saskatchewan to overcome the personal barriers to girls and women can be categorized as follows:

Raising Awareness of Non-traditional Programs and Occupations and the Changing Role of Women

- Saskatchewan Teachers' Federation (STF) has held workshops throughout the province to make female teachers aware of non-traditional employment opportunities in the K-12 system and of other sex equity issues.
- The STF's Women in Education Committees, throughout the province, raise awareness of women's issues in education at the local level.
- The Regina Public School Division uses a video tape on women in non-traditional programs at SIAST, Wascana Campus to make girls aware of opportunities in non-traditional areas.
- The University of Saskatchewan offers the Women's Educational Summer Institute which includes a wide range of seminars and discussion groups on women's issues.
- "Focus On Your Future", a publication developed by the Women's Directorate, Saskatchewan Human Resources, Labour and Employment and distributed to secondary students, provided career and job search information, encouraged the development of a non-stereotyped approach to career planning and stressed the opportunities available to all young people.
- Women's Directorate, Saskatchewan Human Resources, Labour and Employment has delivered workshops throughout the province on a variety of topics related to women in the labour force.
- Women's Directorate has also prepared a statistical profile of the women of Saskatchewan which documents, among other things, their increasing labour force participation and the sex segregation within the labour market.

Recruitment Into and Encouragement of Women in Non-traditional Programs and Occupations

- SIAST, Wascana Campus uses a slide-tape presentation showing women in non-traditional programs to recruit high school students.
- SIAST, Wascana Campus, Bridging Program for Women provides encouragement to women to consider non-traditional programs and occupations.

Gaining Background Experience in Non-traditional Areas

- SIAST and the regional colleges have offered pre-trades and/or pre-technology programs for women which provide opportunities for work experience and basic orientation in the trades and technologies.
- SIAST, Palliser Campus and the University of Regina offer co-operative education programs which provide work experience as an integral part of the program.
- The Bridging Program for Women at SIAST, Wascana Campus, the Contemporary Women's Program offered in Regina for single parent women on social assistance and the Working for Women program in Saskatoon provide job placements in non-traditional areas.

Programs to Promote Self-confidence

The Bridging Program for Women and the Contemporary Women's Program both include measures to increase self-esteem and self-confidence.

Initiatives To Address Situational Barriers

Several measures are being used in Saskatchewan to overcome the situational barriers affecting girls and women. Some of them are as follows:

Child Care

- The Universities of Regina and Saskatchewan and the Kelsey, Wascana and Woodland Campuses of SIAST have day care centres.
- A child care service is offered in conjunction with the Regina School Division's Special Tutorial Class at Balfour Collegiate.
- Saskatchewan Social Services provides subsidies to low income families to cover the costs of licensed child care services.
- Employment and Immigration Canada provides dependent care allowances to its sponsored students.

Recognition of Dual Responsibilities of Students and Employees in Institutional Procedures and Employment Practices

- The universities, SIAST and regional colleges offer part-time, evening and/or weekend programs.
- SIAST, Wascana and Woodland campuses offer competency based learning programs which are individualized and allow some flexibility in attendance requirements.
- SIAST, Kelsey and Woodland campuses and several regional colleges operate learning centres which offer flexible scheduling of their services.
- Regina School Division's Special Tutorial Class at Balfour Collegiate allows pregnant teenagers and teenage mothers to remain in secondary school. Similar programs are also offered by the Moose Jaw Public and Saskatoon Separate School Divisions.

Financial Assistance

- Single parents and other special needs individuals are eligible for extra financial assistance under the Special Incentives Program of the Saskatchewan Student Loan Program. In 1986-87, 80% of supplement recipients were women.
- The Interest Write-Down Program provides a subsidy equivalent to writing down a student's loan to 6% over three years of a standard repayment period. This program is in effect for loans taken for courses starting between May 1, 1986 and July 13, 1989. Women may have this period extended due to pregnancy.
- Financial assistance is also available from the Non-Status Indian and Metis Program, the Vocational Rehabilitation of Disabled Persons Program (VRDP), and the Saskatchewan Skills Development Program (SSDP) for people on social assistance.
- Scholarships are available for women in non-traditional programs at SIAST.

Educational Pre-requisites

- The Department of Education sponsored a media campaign in 1986 to encourage young people to stay in school.
- Several school divisions have taken measures to reduce high school drop-out rates through funds available from the Education Development Fund.
- The province has initiated a literacy campaign which uses volunteers to help adults in the province acquire basic reading and writing skills. The Literacy Council which oversees the program has recommended that the special needs of women be recognized by taking into account their interests and scheduling requirements as well as making them aware of support services available in the community.
- The Saskatchewan Literacy Project, IBM PALS, a national demonstration project of IBM's Principle of Alphabet Learning System, was recently initiated. It is designed to improve the reading and writing skills of 5,000 people and to complement volunteer-based literacy programs.
- SIAST and the regional colleges offer adult basic education, high school completion, English as a Second Language, and the General Educational Development (GED) program to assist individuals in gaining admission requirements.
- The University Entrance Program at the University of Regina grants admission to some students who do not meet the normal academic entrance requirements.
- The University of Saskatchewan offers a special mature admission option for individuals 21 years and over.
- SIAST and the universities have had informal credit transfer arrangements which are now being formalized.

Distance Education

- The province has established a Distance Education Council to ensure a coordinated approach to delivering high quality and cost-effective programs throughout the province.
- Correspondence courses are offered through the Department of Education's Correspondence School or through special arrangements made with Alberta's Athabasca University by some of the regional colleges.
- The University of Regina has used teleconferencing and videoconferencing methodologies while the University of Saskatchewan has used satellite transmission for some of its programs.
- The Saskatchewan Tele-Learning Association (STELLA) network can now deliver programs to approximately 30 sites within the province.
- SIAST, Kelsey and Wascana Campuses use the computer based education program PLATO.
- SIAST, Wascana Campus has offered retraining programs for nurses throughout the province using distance education methodologies.

Decentralized Program Delivery

- The regional colleges and the Northlands Career College provide university and institute programs on an extension basis throughout the province as well as adult upgrading programs and counselling services.
- The province has established a $3M Education Outreach Fund to provide the resources needed to offer institute and university courses in smaller centres.
- Several SIAST programs have been modularized which assists delivery on a decentralized and/or part-time basis.
- The Saskatchewan Skills Extension Program (SSEP) has also facilitated the delivery of institute programs through the regional college system.
- The Saskatchewan Indian Federated College offers some courses on Indian reserves throughout the province.

Personal Support Networks

- SIAST, Palliser Campus has had a support group for women in the trades and technologies.
- Both universities have Women's Centres on campus.

Role Models

- Saskatchewan Education, as part of the Government of Saskatchewan's Employment Equity Plan, has increased the number of women in management positions.
- The Apprenticeship and Trade Certification Branch is increasing the participation of women on Trade Advisory Boards where they are under-represented.

Initiatives to Address Institutional Barriers

Educational institutions in Saskatchewan have also taken several steps to promote sex equity at the institutional level. Some of these measures are as follows:

Curriculum and Instructional Materials

Saskatchewan Education has established stereotyping and bias guidelines for curriculum development and evaluation which include the use of non-sexist language and the depiction of equal numbers of males and females with a range of personal characteristics in a variety of occupations. The Saskatchewan Public Service Commission's document *A Sense of Balance* is used as a resource on eliminating stereotyping.

Career Counselling

- Counselling services are available at all SIAST campuses, the universities and the regional colleges as well as within the K-12 system.
- Crossroads, a computerized career and training information software program developed by Saskatchewan Education, is presently available through SIAST, regional colleges, and some elementary or secondary schools.
- A Student Development and Career Resources Unit has been established in the Department of Education to provide leadership, coordination and support services for counselling to the K-12 and post-secondary systems.
- Saskatchewan Education has approved the recommendation of the Guidance Reference Committee that student development be an integral part of the mandatory K-12 core curriculum and that each Saskatchewan student have access to student development instruction and services.

- Saskatchewan Education will also ensure that equity for women, persons of native ancestry and persons with disabilities is an integral part of student development course content and service delivery.

Sex Equitable Teaching Practices

- Content on sex equity issues in the classroom is included informally in some teacher training courses.
- The STF has distributed material on sex equitable teaching practices to its Women in Education Committees.

Sexual Harassment Policies

- The Universities of Regina and Saskatchewan have established sexual harassment policies for students and staff members. The University of Saskatchewan has also appointed a Sexual Harassment Officer.
- The Regina Public School Division has developed a sexual harassment policy and complaint procedure for its employees.
- The STF adopted a policy on sexual harassment in 1984 designed to deal with the detrimental effects harassment can have on school climate and the quality of work life for female teachers.

Employment and Education Equity Plans

There have been some equity plans established in the province directly related to the education system, such as the following:

- Saskatchewan Education, as part of a government-wide initiative, has instituted an employment equity plan for out-of-scope, entry level and non-permanent positions for women, persons of native ancestry and people with disabilities.
- The Saskatchewan Institute of Applied Science and Technology has initiated employment and education equity plans. Wascana Campus has had an education equity plan approved by the Saskatchewan Human Rights Commission in place since 1985.
- A Native Career Services Division has been established within the Saskatchewan Institute of Applied Science and Technology under the joint management of the Institute and the Gabriel Dumont Institute of Native Studies and Applied Research. The Division will provide both on and off-campus programs including referral services, counselling, tutoring, preparatory and certificate programming and orientation sessions for native students.
- The University of Saskatchewan is developing an employment equity plan to meet the requirements of the Federal Contractors Program.
- Several school divisions have established, at the request of the Saskatchewan Human Rights Commission, education equity programs to increase the participation and retention of students of native ancestry.
- An equity plan will be established within the province's apprenticeship program to increase the participation of women, persons of native ancestry and persons with disabilities.

Options for Action

There are many options available to education institutions and Saskatchewan Education to increase the participation of women in non-traditional programs and occupations. Extensive research and experience in this area have identified some particularly effective measures that can be implemented at both the institutional and governmental levels.

Education Institutions

Individual institutions have a crucial role to play in promoting sex equity within the province's education system. In order to change the existing participation patterns of female students and employees, that role should include:

- demonstrating an organizational commitment to achieving equity for female students and employees;
- developing and implementing comprehensive policies and practices that support that commitment; and
- developing evaluation mechanisms to monitor progress in achieving the equitable participation of female students and employees.

There are a number of options available to educational institutions to fulfill their role in achieving sex equity. For example, organizational commitment can be demonstrated through the development of a sex equity policy statement and action plan or the implementation of education and employment equity plans.

As well, a wide range of initiatives are available to individual institutions to increase the participation of female students and employees in areas where they are currently under-represented. The selection of appropriate strategies will, of course, depend upon the requirements within individual institutions. However, in order to effect real and lasting change, it will be necessary to implement a number of inter-related practices.

More specifically, institutions should examine all aspects of the educational experience to ensure the equitable treatment of males and females. This would include a review of student-teacher interaction, teaching methodologies, curricula, counselling services, admission criteria, program scheduling, program delivery and support for extracurricular activities. Non-sexist language should be used by all staff members and in all written materials. Promotional items should give visibility to males and females in a variety of programs and occupations.

Elements of the "hidden curriculum", such as the lack of women in managerial and other non-traditional positions within the education system, should also be addressed.

Active encouragement of students by educators to consider all options before making a career choice is an important aspect of ensuring female students are aware and take advantage of all the opportunities available to them. Educational institutions can recruit girls and women into non-traditional programs through career days or workshops, special promotional material, regular high school visitations, or contacts with community groups. Girls and women also need to be made aware of women already employed in non-traditional occupations.

Access for women to non-traditional programs could also be enhanced through establishing re-entry or transitional programs aimed specifically at entry into non-traditional areas. As well, institutions should assess the need for child care and other support services for students with family responsibilities.

Educational institutions can also undertake a number of measures to increase the number of women in administrative and other non-traditional occupations within the education system. For example, institutions should ensure that their recruitment, hiring and promotion procedures do not discriminate against women. Female employees should be encouraged and given the opportunity to gain managerial and leadership experience through chairing committees, job rotation, job shadowing, internship, special assignments, secondments, exchange programs and other professional development opportunities. Women should be actively encouraged to apply for managerial and other non-traditional positions.

Employment practices that recognize employees' family responsibilities such as job sharing, credit for experience gained outside the education system and parental leave could also be instituted. As well, employer sponsored child care centres could be established and/or institutions could work with community organizations to provide appropriate child care services.

Saskatchewan Education

Saskatchewan Education has a major role to play in promoting sex equity throughout the provincial education system. This role includes:

- demonstrating the government's commitment to sex equity in education;

- promoting and supporting sex equity initiatives within the education system;
- ensuring its own policies and programs promote sex equity; and
- monitoring its own programs and developments in the field to determine what progress is being made toward the more equitable participation of women in the education system.

There are several ways Saskatchewan Education could carry out these responsibilities. To provide leadership in this area, it could develop its own policy statement and action plan on sex equity. The policy and plan would define the government's position on sex equity within the education system and outline the strategies for achieving its goals. In addition to this, Saskatchewan Education could ask educational institutions to prepare employment and education equity plans to increase the participation of women in areas where they are under-represented as was done when the Saskatchewan Institute of Applied Science and Technology was created.

Departmental support for sex equity initiatives within the education system could be given through co-ordinating and sharing information about current developments within the province and other jurisdictions. As well, Saskatchewan Education could initiate an inter-organizational committee to help ensure a co-ordinated and comprehensive approach to sex equity issues within the education system. Committee members could include representatives from educational organizations or institutions and government departments such as Human Resources, Labour and Employment and Social Services.

Saskatchewan Education has an ongoing commitment to sex equity within its policies and programs. These practices should continue to be reviewed in terms of their effect on the participation of women within the education system. Some areas which could receive particular attention given their importance in promoting equity for women are financial assistance for students, counselling services, apprenticeship and skill training, instructional practices and curriculum development and evaluation.

As well as continuing to monitor its own programs, Saskatchewan Education has a responsibility to monitor the education system as a whole to determine changing patterns of female participation within the education system. One method of doing this would be an annual report on equity within the education system based on information provided by Saskatchewan Education and individual institutions.

Issues

An analysis of the material presented in this paper raises several issues related to changing the participation patterns of female students and employees within the province's education system. Some of these issues are as follows.

Is There a Problem?

A fundamental issue related to achieving sex equity in the educational system in Saskatchewan is whether all institutions within the system will recognize that there are problems in this area and provide the necessary financial and human resources to solve those problems. As in society as a whole, there may be a perception that, based on a greater visibility for women's issues generally and the gains that women have made within certain sectors of the education system, women have achieved equality within it.

However, this paper has presented statistics which clearly document the under-representation of women in non-traditional occupations and program areas within the education system in Saskatchewan. Few women are employed in managerial positions within the educational system. Although young women in Saskatchewan tend to participate in the maths and sciences in equal numbers to boys at the Grade 12 level, women still tend to choose traditionally female-dominated post-secondary programs leading to traditionally female-dominated occupations which are lower paid, offer less opportunity for advancement and have lower status than traditionally male dominated occupations. Research has shown that those statistics are attributable, in part, to practices and procedures that lie at the very heart of the education system: attitudes toward and expectations of male and female students, teacher-student interaction, curriculum and instructional materials, career counselling, access to resources and the occupational distribution of male and female employees.

Beyond the basic consideration of the importance of equal opportunity for all members of our society, there are significant social and economic changes taking place which make the present participation of women within the education system increasingly unacceptable for individual women and the society in which they live. Women will continue to enter the labour force in increasing numbers due to the economic need to support themselves and their families. It is estimated that, over the next ten years, two-thirds of new entrants to the Canadian labour force will be women. Therefore, to a greater extent than ever before, growth in the provincial and national economies and our ability to compete in world markets will depend upon the development and utilization of women's skills and abilities.

In addition, significant changes are occurring within the labour market itself related to technological change, increased world competition and a shift toward a service-based economy. These emerging patterns could, theoretically, benefit women but only if the education system prepares them now and in the future for the opportunities that will be available. Unless interventions are made through the education system and other avenues, the traditional pattern of men in decision-making and higher skill positions and women in supportive and lower skill positions is likely to continue. This will perpetuate the underutilization of human resources that is counterproductive when assessed in the light of future labour market characteristics and requirements.

The education system has a particular obligation as one of the major socializing institutions within our society to ensure that it is free from sex bias and that it fosters equal participation of women in all aspects of our society. That obligation takes on added importance in the face of changing social and economic conditions.

Therefore, there needs to be a recognition of the importance of this issue among the major actors within the education system in Saskatchewan. Little meaningful long-term change will take place without a commitment from senior management levels in all education institutions to make this issue a priority and include it as an integral part of all aspects of the organization.

How Can Change Be Achieved?

Assuming an acceptance among all actors within the education system that there should be an increase in the number of women in non-traditional programs and occupations, the issue then becomes one of determining the best way of achieving the required results. This paper has, based on a review of the literature and examination of existing practice in Saskatchewan, Canada and elsewhere, presented a range of strategies designed to promote equity for female students and employees. There is considerable agreement on what education institutions can do. There is also a consensus that these strategies must be brought together as part of a comprehensive plan based on an organizational commitment to equity in order for real change to occur.

Equity plans are one approach which meets both those criteria. Equity plans commit the organization to achieving particular goals in regard to women's participation within a particular time frame. A monitoring system is established to evaluate the results of the measures undertaken. The goals and timetables may be altered to account for changing circumstances but the organization's original commitment to equity and the planning process does not change.

Such plans assume that there are systemic barriers limiting the equitable participation of particular groups of people within society. Increased participation is achieved not on an individual, case by case basis but rather through comprehensive measures designed to benefit all members of the group.

Equity plans for employees are an effective means of human resource management. They ensure that the organization will benefit from all human resources available to it. Many special measures, such as changes within recruitment, hiring and training policies, can benefit all employees rather than one particular group.

In addition, equity plans can be a means of increasing public support for individual institutions and the education system as a whole. They can increase the visibility within the community of the institution's commitment to realizing each student's full potential.

The present approach to achieving equitable participation for women in the education system has resulted in only limited progress. For example, it is estimated that at the current rate of change it will take over one hundred years for women to hold one-half of all faculty positions in Canadian universities. It is obvious that a more systematic and comprehensive approach based on organizational commitment is necessary to increase women's participation in non-traditional areas. Indeed, the federal government's response to a lack of voluntary equity initiatives has been the introduction of mandatory equity plans under the Federal Contractor's Program and the Employment Equity Act.

How Can Equity Plans Be Implemented When Limited Employment Opportunities Are Available?

A concern frequently raised about the implementation of equity plans is the lack of employment opportunities available within the education system at this time. According to this argument, it is pointless to implement equity initiatives when there are few jobs available for women or men.

Although there are real financial constraints operating within the education system, it does not necessarily follow that there are no employment opportunities. For example, at the end of the 1986-87 school year, there were approximately one hundred and fifty managerial positions available within the K-12 system in Saskatchewan. An analysis of vacant positions over the past few years at other institutions may reveal more openings were available than at first seems apparent.

During periods of fewer employment opportunities, the measures advocated under equity plans can be used to identify potential female candidates for non-traditional positions and to assist them in gaining the training and experience necessary for positions that may become available. Women can be given learning opportunities through, for example, secondments, special assignments, committee work, internships, job rotations or job shadowing, as well as through training programs. The object is to help women acquire the skills, abilities and experience necessary to function effectively in managerial and other positions when they become available.

It can be argued that periods of economic restraint are when employment equity programs are needed the most. Such programs help ensure that women are given equal access to available positions based on their own skills and abilities. When fewer jobs are available and there is a large pool of candidates, it is likely that established hiring and promotional patterns will continue unless specific strategies are used to increase the representation of women in non-traditional positions.

As well, it is unlikely that there will ever be ideal conditions for implementing employment equity within the education system. The goal of achieving equality of opportunity for women should not be dependent upon the state of the economy at any given time.

Common Misconceptions About Equity Plans

Often, one of the biggest hurdles in the implementation of equity plans is overcoming the misconceptions about what that term actually means. The most prevalent misunderstandings relate to the imposition of hiring quotas, the promotion of unqualified women, the notion of "reverse discrimination" and the perception that women are not interested in or do not want non-traditional employment.

The Canadian approach to equity does not rely on a quota system, i.e., the hiring of a fixed number of women at all levels of the organization. Rather, realistic goals and timetables are established for the short-, medium- and long-term based on the individual organization's requirements and the availability of qualified candidates. These goals and timetables are flexible; they can be modified to reflect changes occurring within the organization at any given time.

The implementation of equity plans does not mean that unqualified women will be given promotions. In fact, doing just that has been cited as one way of ensuring the failure of such programs. Employment equity programs are designed to ensure that there are women available with the necessary qualifications through, for example, recruitment and training and to remove other barriers that prevent qualified female candidates from being given equal consideration. Equity plans do not lead to lowered program or job performance standards.

Neither is an equity plan "reverse discrimination". These programs seek to eliminate discriminatory practices that have affected women in the past and prevented them from realizing their full employment potential. Programs such as these do not discriminate against men. Rather, they implement special measures that will help provide equal employment opportunities for women.

It is true that for many women in the educational system teaching is their career goal and they may have little interest in managerial positions for a variety of reasons. In the emphasis on equal participation of women in non-traditional roles, the value of the more traditional roles women play must also be recognized. Educational leadership is not limited to managerial roles; it is provided in individual classrooms, in educational organizations and institutions and in the larger community. However, the statistical profile of the female employees within the education system indicates a major under-utilization of the human resources available to it. For example, it is unlikely that when over half of the K-12 teaching population in Saskatchewan is female, only one female teacher in twenty is interested in or has the ability to perform managerial roles.

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